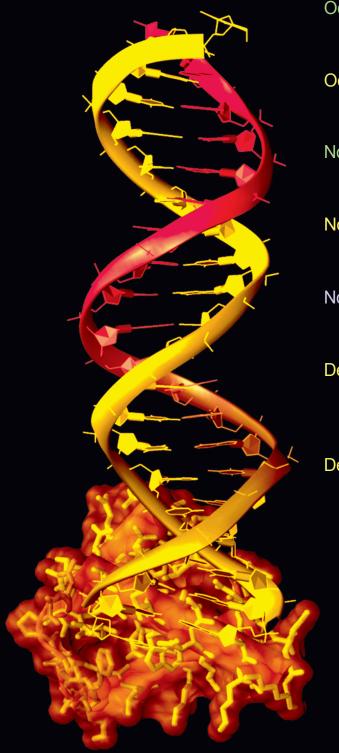
MICHIGAN STATE UNIVERSITY





SCIENCE at the Edge

Traditionally distinct scientific disciplines are merging to create new opportunities. Share the excitement and challenge through seminars and discussions with nationally recognized pioneers in science at the edge.

Fall Semester 2011

Seminars are on Fridays at 11:30 a.m., with refreshments served at 11:15 a.m. 1400 Biomedical and Physical Sciences Building (unless noted otherwise)

September 2 - Quantitative Biology/Gene Expression in Development and Disease Seminar Yingfu Li, Health Science Center, McMaster University Expanding the Function and Utility of Nucleic Acids

September 9 - Quantitative Biology/Gene Expression in Development and Disease Seminar Haixu Tang, Department of Informatics and Computing, Indiana University Next Generation Software Tools for Next Generation Sequence Analysis

September 16 - Interdisciplinary Physics Seminar

Yuri Gorby, Department of Biological Sciences, University of Southern California Bacterial Nanowires and Extracellular Electron Transfer

September 23 - Quantitative Biology/Gene Expression in Development and Disease Seminar Shizhong Xu, Department of Botany and Plant Sciences, University of California, Riverside Using Genome-wide Marker Information to Detect Natural Selection

September 30 - Quantitative Biology/Gene Expression in Development and Disease Seminar Dan Voytas, Department of Genetics, Cell Biology and Development, University of Minnesota

Precise Genome Engineering with Sequence-specific Nucleases

October 7 – Engineering Seminar

Arul Jayaraman, Department of Chemical Engineering, Texas A&M University Inter-kingdom Signaling in the GI Tract: There's a Lot of Talking Going On

October 14 - Quantitative Biology/Gene Expression in Development & Disease Seminar Rob Coalson, Department of Chemistry, University of Pittsburgh Modeling Permeation through Biological Ion Channels: A Physico-Chemical Perspective

October 21 - Quantitative Biology/Gene Expression in Development & Disease Seminar David Houle, Department of Biological Science, Florida State University *Phenomics and the Genotype-phenotype Map*

October 28 - Interdisciplinary Physics Seminar

Gianluca Ascolani, Laboratory IMNC, CNRS-UMR8165, Orsay, France Glioma Cells Exchanging Information Via Gap Junctions and Their Migration Process

November 4 - Quantitative Biology/Gene Expression in Development & Disease Seminar Smadar Ben Tabou de Leon, Department of Biology, California Institute of Technology Information Processing in Developmental Gene Regulatory Networks

November 11 - Interdisciplinary Physics Seminar

Chris Xu, Applied Physics, Cornell University Pushing the Limits of Biological Imaging Using Multiphoton Excitation

November 18 – Engineering Seminar

Justin Hanes, Chemical & Biomolecular Engineering, Johns Hopkins University *Drug Delivery to Mucosal Surfaces*

December 2 - Interdisciplinary Physics Seminar Jay Grate, Pacific Northwest National Laboratory Pore Network Microfluidic Habitats and Structures for the Visualization and Study of Microbial Communities and Carbon Sequestration

December 9 - Interdisciplinary Physics Seminar

Jonas Korlach, Pacific Biosciences, California Single-Molecule, Real-Time (SMRT(tm)) Monitoring of Biomolecules: DNA Sequencing and Beyond

Organizers Ruby Ghosh (ghosh@pa.msu.edu), & Jeffrey Schenker (jeffrey@math.msu.edu), Interdisciplinary Physics Christina Chan (krischan@egr.msu.edu), Engineering C. Titus Brown (ctb@msu.edu), & David Arnosti (arnosti@msu.edu), Quantitative Biology/Gene Expression in Development & Disease